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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,532	07/26/2004	Stefano Cavicchioli		5666

7590

08/08/2006

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EXAMINER
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LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/502,532

Applicant(s)

CAVICCHIOLI ET AL.

Examiner

David D. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This is the second Office action on the merits of Application No. 10/502,532, filed 26 July 2004. Claims 4-10 are pending.

#### **Documents**

2. The following documents have been received and filed as part of the patent application:
  - Information Disclosure Statement, received on 07/26/04
  - Substitute Specification, received on 05/05/06
  - Drawings, received on 05/05/06
  - New Declaration and Power of Attorney, received on 05/05/06

#### ***Drawings***

3. The drawings were received on 05 May 2006. These drawings are approved.

#### ***Specification***

4. The disclosure is objected to because of the following informalities:
  - Substitute specification, paragraph [0014], lines 8 and 9, “stationery” should be -stationary--.
  - Substitute specification, paragraph [0024], line 8, “revers” should be --reverse--.

Appropriate correction is required.

***Claim Objections***

5. Claims 7 and 9 are objected to because of the following informalities:

- Claim 7, line 11, "differential gear boxes" should be --differential gear box--.
- Claim 9, line 13, "said fourth differential gear boxes" should be --said fourth differential gear box--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. **Claims 4-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**Claim 4:**

- Line 1 recites the limitation "the rotational velocities". There is insufficient antecedent basis for this limitation in the claim.
- Line 2 recites the limitation "the combined sum of rotational velocities". There is insufficient antecedent basis for this limitation in the claim.

Claim 7:

- Lines 8-9 recite the limitation "the output from the clutch associated with said third and fourth rotating shafts". There is insufficient antecedent basis for this limitation in the claim.
- Lines 9-10 recite the limitation "the output from said first and second differential gear boxes". There is insufficient antecedent basis for this limitation in the claim.
- Lines 10-11 recite the limitation "the output of said third differential gear box". There is insufficient antecedent basis for this limitation in the claim.

Claim 9:

- Lines 8-9 recite the limitation "the output from the clutch associated with said third and fourth rotating shafts". There is insufficient antecedent basis for this limitation in the claim.
- Line 10 recites the limitation "the output from said first and second differential gear boxes". There is insufficient antecedent basis for this limitation in the claim.
- Line 11 recites the limitation "the output of said third differential gear box". There is insufficient antecedent basis for this limitation in the claim.
- Lines 12-13 recite the limitation "the output of said fourth differential gear box". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent**

**Application Publication No. US 2003/0069103 A1 to Ibamoto et al.**

**Claim 4:**

***Ibamoto*** (i.e., Figs. 12 and 15; paragraphs [0074] to [0084]) discloses an automatic transmission comprising:

- A first and a second rotating shaft (i.e., Fig. 12, elements 8 and 7) and transmitting the combined sum of the rotational velocities to an output shaft (i.e., Fig. 12, element 21), said first shaft being driven at a rotational velocity V, a gear system interconnecting said first and second rotating shafts and for driving the second rotating shaft at a rotational velocity which is approximately .5V (i.e., paragraph [0078]);
- A clutch (i.e., Fig. 12, being the dog clutches between the gears) associated with each of said rotating shafts, each of said clutches having a first state in which rotary motion is transmitted as an output, and a second state in which no rotary motion is transmitted;

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- A first differential gear box (i.e., Fig. 12, being the gear arrangement at the vicinity of elements 20, 63 and 21; examiner interprets the claimed differential gear box as a gear arrangement that is capable of having two rotational inputs and one rotational output) receiving the rotary motion outputted by one or more of said clutches, and transmitting rotary motion to said output shaft, said output shaft being driven by said differential gearbox at rotational speed which is approximately equal to 0, if the clutches associated with said first and second rotating shafts are in said second state.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

11. Claims 5-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Cordeiro (U. S. Patent No. 6,895,835) teaches a motor-driven system, as shown in Fig. 4.
- Loeffler (U. S. Patent No. 6,712,734) teaches a gearbox for a motor vehicle, as shown in Figs. 1 and 2.
- Palmer (U. S. Patent No. 5,662,009) teaches a drive mechanism, as shown in Fig. 1.
- Jupe (U. S. Patent No. 4,783,023) teaches a transmission, as shown in Fig. 2.
- Coronel (U. S. Patent No. 4,700,589) teaches a drive system, as shown in Fig. 1.
- Pollak-Banda et al. (U. S. Patent No. 4,022,083) teaches a drive system as shown in Fig.5.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,



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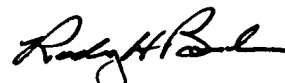
however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
ddl

  
RODNEY H. BONCK  
PRIMARY EXAMINER  
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